

Work Order ID 140145***140145***

Page 1

Item ID: D407-836-017

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Crosstube Antenna Mount 407 Aft (P162-407A)

Start Date: 12/17/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 12/17/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: MLJ Date: DEC 23 2015 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
GA202-2	A

100 Document Control

0.00

100

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile and create labels as per PPP D407-836-017 CH001

DAS
27
9-89

FEB 10 2016

110 Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

DAS
6
9-89

FEB 03 2016

120 QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.00

Quality Control

DAS
27
9-89

FEB 10 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Work Order ID 140145***140145***

Page 2

Thursday, December 17, 2015 3:43:16 PM

Item ID: D407-836-017 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Crosstube Antenna Mount 407 Aft (P162-407A)
Start Date: 12/17/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 12/17/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D407-836-017								
	Location: _____								
	PPP Rev: _____								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

Handwritten: sold

Stamp: DAS 27 9-89 FEB 10 2016

Handwritten: MS

Stamp: FEB 10 2016

Handwritten: MS

Stamp: FEB 10 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Thursday, December 17, 2015 3:43:15 PM

Page 1

Work Order ID: 140145

140145

Parent Item: D407-836-017

D407-836-017

Parent Item Name: Crosstube Antenna Mount 407 Aft (P162-407A)

Start Date: 12/17/2015

Required Date: 12/17/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 13.07.18 AS PER ECN13-561 DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D4853-1		Manufactured	No				Each	19.0000		1			
---------	--	--------------	----	--	--	--	------	---------	--	---	--	--	--

D4853-1

Top Bracket (Replaces P/N G13013-1)

**

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST519

19

135064

19

D4854-1		Manufactured	No				Each	4.0000		1			
---------	--	--------------	----	--	--	--	------	--------	--	---	--	--	--

D4854-1

Lower Bracket (Replaces P/N G13013-2)

**

FEB 09 2016

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

st526

4

126502

4

D4855-1		Manufactured	No				Each	3.0000		1			
---------	--	--------------	----	--	--	--	------	--------	--	---	--	--	--

D4855-1

Antenna Bracket (Replaces P/N G13013-3)

**

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

st526

3

128258

3

D2732-030		Manufactured	No				Each	96.0000		2			
-----------	--	--------------	----	--	--	--	------	---------	--	---	--	--	--

D2732-030

Rubber Cushion - 3"

**

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

56

134608

4

135594

44

136784

8

ST410

40

136784

40

FEB 03 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Page 2

Thursday, December 17, 2015 3:43:15 PM

Work Order ID: 140145

140145

Parent Item: D407-836-017

D407-836-017

Parent Item Name: Crosstube Antenna Mount 407 Aft (P162-407A)

Start Date: 12/17/2015

Required Date: 12/17/2015

Start Qty: 1.00

Required Qty: 1.00

AN4-16A

Purchased

No

Each

217.0000

AN4-16A

Bolt

**

2
133998

DAS

6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

5

121541

5

over003

150

M133769

150

ST325A

61

M133483

4

M133577

57

ST343

1

M132317

1

AN4-11A

Purchased

No

Each

122.0000

AN4-11A

BOLT

**

2

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

20

120731

20

over003

100

M133234

100

ST325A

2

M128362

2

NAS1149D0432J

Purchased

No

Each

504.0000

NAS1149D0432J

WASHER

**

2
8

DAS
6
9-89

FEB 03 2016

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

230

m131026

230

ST269

274

m131026

274

Thursday, December 17, 2015 3:43:15 PM

Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Page 3

Thursday, December 17, 2015 3:43:15 PM

Work Order ID: 140145

140145

Parent Item: D407-836-017

D407-836-017

Parent Item Name: Crosstube Antenna Mount 407 Aft (P162-407A)

Start Date: 12/17/2015

Required Date: 12/17/2015

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased

No

Each

3,311.000

MS21042L4

Locknut

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

137

m133363

137

GA

41

m127813

41

ST260a

92

m130799

56

m132262

36

ST303

2908

m133769

2908

ST305

133

m128300

8

m130388

4

m130922

97

m132123

24

DAS
6
9-89

FEB 03 2016

Thursday, December 17, 2015 3:43:15 PM

Shop Packet Print

Page 3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
		OTHER : ☐							

REFERENCE ONLY

DART AEROSPACE USA, INC.

GA202-2
Page 7 of 7

5. PARTS LIST

Qty -011	Qty -013	Qty -015	Qty -017	Qty -111	Part Number	Description
X					D206-836-011	CROSSTUBE ANTENNA MOUNT KIT 206A/B AND 206L FWD (P162-206)
	X				D206-836-013	CROSSTUBE ANTENNA MOUNT KIT 206L AFT (P162-206L)
		X			D407-836-015	CROSSTUBE ANTENNA MOUNT KIT 407 FWD (P162-407F)
			X		D407-836-017	CROSSTUBE ANTENNA MOUNT KIT 407 AFT (P162-407A)
				X	D206-836-111	CROSSTUBE ANTENNA MOUNT KIT UNIVERSAL (P162-U)
			1	1	D4853-1	TOP BRACKET (REPLACES P/N G13013-1)
1				1	D4853-3	TOP BRACKET (REPLACES P/N G13013-5)
		1		1	D4853-5	TOP BRACKET (REPLACES P/N G13013-7)
	1			1	D4853-7	TOP BRACKET (REPLACES P/N G13013-9)
			1	1	D4854-1	LOWER BRACKET (REPLACES P/N G13013-2)
1				1	D4854-3	LOWER BRACKET (REPLACES P/N G13013-6)
		1		1	D4854-5	LOWER BRACKET (REPLACES P/N G13013-8)
	1			1	D4854-7	LOWER BRACKET (REPLACES P/N G13013-10)
1	1	1	1	1	D4855-1	ANTENNA BRACKET (REPLACES P/N G13013-3)
2	2	2	2	2	D2732-030	RUBBER CUSHION (REPLACES P/N G13013-4)
2	2	2	2	2	AN4-16A	BOLT
2	2	2	2	2	AN4-11A	BOLT
8	8	8	8	8	NAS1149D0432J	WASHER
4	4	4	4	4	MS21042L4	LOCKNUT

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Revision: A
Date: 13.05.15